THE

MEDICAL AND SURGICAL REPORTER.

WHOLE SERIES, NO. 243. } PHILADELPHIA, JUNE 15, 1861. { NEW SERIES, VOL. VI. NO. 11.

ORIGINAL DEPARTMENT.

COMMUNICATIONS.

Anatomy in its Relations to Medicine and Surgery.

By D. Hayes Agnew, M.D.,

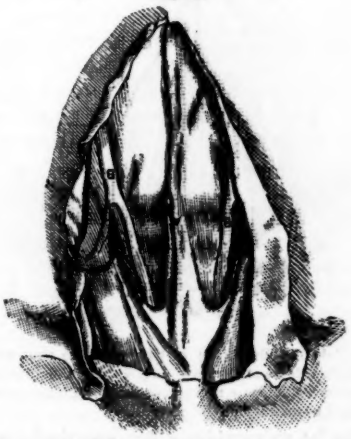
Lecturer on Anatomy, Surgeon to Philadelphia Hospital, etc.

No. 44.

The Median Sub-Hyoid Region—(*Continued.*)—When the neck is flexed, the skin along the mesial line becomes very movable, gliding with great facility over the subjacent parts. Let the neck be extended, and it becomes much more fixed and tense; and hence the propriety of making such a disposition of parts before commencing an operation which has for its object either the opening of the larynx or trachea.

For our present purpose, we shall make an exposure of the median structures from the middle of the thyroid cartilage to the top of the sternum. When the skin is incised and turned slightly outward on each side, the cellulo-adipose layer will be exposed. The thickness of this will depend principally on age and sex. Children have it in abundance as a general rule, and females more than males. Existing in a very moderate degree over the laryngeal prominence, it steadily increases in amount to the supra-sternal fossa, where it is in the greatest abundance. When the superficial fascia is divided and turned aside, there will be seen along the inner edge of each sterno-cleido mastoid muscle a vein, the "*anterior jugulars.*" These vessels are in the deep layer of the superficial fascia; they approach each other as they descend, frequently communicating with each other by a transverse trunk across the supra-sternal fossa, and terminate either by turning over the lower end of the sterno-mastoid muscles and entering the external jugulars or under them, and emptying into the internal jugular, or they may communicate with both.

Fig. 39.

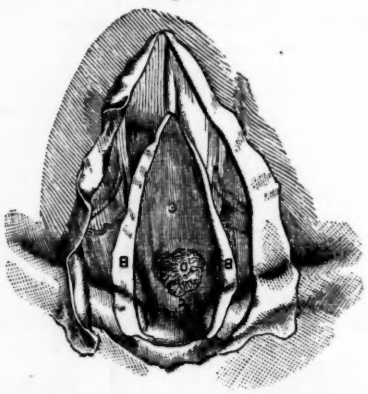


The superficial fascia is turned aside, and the anterior jugulars, *b b*, are seen descending, gradually approaching the median line, *a*. To deviate, therefore, from this middle line, is to endanger one or other of these veins, and, when they supplement the absence of the external jugulars, their size is such as to make it an object of importance, to avoid inflicting upon them any injury. Should they be wounded, a ligature will be required.

These vessels rest upon the most superficial leaf of the deep cervical fascia, which is seen, by a reference to figure 39, to descend upon the anterior face of the sternum. Should this layer be incised in the mesial line, *a*, a second leaf will be discovered beneath, separated from the former some considerable distance below, but above becoming blended with it. This layer is the one noted in our general remarks on the cervical fascia, as enveloping the omo-hyoid muscles, and I shall designate it as the "*omo-hyoid fascia,*" and this particular portion of it the "*inter omo-hyoid.*" It stretches across the

median line of the neck, and is connected below to the sterno-clavicular ligaments and the inner edge of the top of the sternum. Resting upon it are some loose cellular tissue, a little fat, and a lymphatic gland or two. There is formed here, by the last two fascial laminæ, a little pocket above the sternum, the depth of which is almost equal to the thickness of that bone, inasmuch as the two layers are attached respectively the one to its anterior, and the other to its posterior edge.

Fig. 40



Will explain the dissection; *a*, the top of the sternum, *b b*, the superficial layer of the deep fascia divided along the middle line and turned aside; *c c*, the inter-omo-hyoid fascia, and resting upon it a small lymphatic gland, *d*.

Here let us consider a few practical lessons taught by this disposition of parts. The supra-sternal fossa or hollow of the neck, as it is commonly called, would seem to be formed by the pressure of the atmosphere forcing this first fascial layer toward the second. The connection of the second, or "inter-omo-hyoid fascia," to the posterior edge of the sternum, together with the conjoined action of the two omo-hyoid muscles, which act as its tensors, serve to protect the trachea from the pressure of the external air; and so also when a tumor appears in the supra-sternal fossa, and is not accompanied by difficult breathing, it is fair to infer its location is exterior to this lamina, and is probably an enlargement of the lymphatic ganglion represented in figure 40, letter *d*. It is said, when this fascia, which so admirably protects the trachea from mechanical pressure, is destroyed by destructive ulceration, the respiration becomes greatly embarrassed. While I am free to admit the value of this layer in protecting the trachea from the pressure of a morbid growth, exterior to itself, it appears unphilosophical to attribute any importance to it in the way of preventing the calibre of the trachea being diminished by the weight of the outer air. Such an effect is effectually provided against by the cartilaginous structure of the tracheal walls, and especially the contained column of air. In tracheotomy, this fascia is divided, and what surgeon has ever seen any such effects when the trachea was uncovered? There is, however, a more important office, I conceive, fulfilled by this fascia, and that is in furnishing support to the internal jugular veins in a situation where it is required. At the lower part of the neck, the sterno-cleido mastoid muscles leave the surface of the vessels to reach their sternal and clavicular attachments, in consequence of which these vessels lose that support which the muscles afford higher up. This fascia admirably supplies their place.

Many persons complain of great itching in the supra-sternal fossa on the accession of catarrhal symptoms. It is probable that some of the lower filaments of the external branch of the superior laryngeal nerve, (the nerve supplying the mucous membrane of the upper part of the air-passage,) and which reach the neighborhood may, by their communications with the cutaneous branches of the region, explain this feeling.

In dividing next this inter-omo-hyoid fascia, the sterno-hyoid and thyroid muscles are separated from each other, both deriving from it their sheaths. These ribbon-like muscles arise the first or *sterno-hyoid* from the inner surface of the sterno-clavicular ligaments, and first bone of the sternum, and ascend to be inserted into the body of the hyoid bone. The muscles of the two sides approach each other as they ascend. The *sterno-thyroid* is placed immediately beneath the last. It is considerably broader, and also shorter than the other, and its *origin* is from the under surface of the first bone of the sternum, and is *inserted* into the oblique line on the side of the thyroid cartilage. The sterno-thyroids of the two sides have their inner edges in close proximity with each other below, but are some distance apart above, receding from the median line to their attachments. These muscles are strapped over the thyroid body, covering nearly the whole breadth of its lateral lobes.

As this description supposes an expose of parts from the hyoid bone to the sternum, in other words, all of the median infra-hyoid region, a number of very dissimilar parts will appear.

First. Immediately beneath the hyoid bone between it and the top of the thyroid cartilage, is a dense white membrane, the "*thyro-hyoid.*" If the sterno-hyoid muscles be cut off from their insertions, the *thyro-hyoids* will be seen extending from the oblique lines of the thyroid cartilages up to the cornua of the hyoid bone. Beneath these muscles, the thyro-hyoid membrane is pierced by the *superior laryngeal* nerve, a branch from the pneumogastric and the superior *laryngeal artery* from the superior thyroid. A small artery from the same source crosses this membrane immediately below the hyoid bone, "*hyoid artery.*" These vessels are all accompanied by small veins which cross over to the internal jugular. The prevalent idea among persons who attempt self-destruction by cutting their throats, seems to be that the great vessels of the neck are more easily reached above than below; hence, in a large number of cases the wound is inflicted in this thyro-hyoid space, and a very large amount of structure must be divided before the instrument can reach a depth sufficient to endanger the carotid arteries. When a wound extends sufficiently deep to divide the thyro-hyoid membrane, it will open the pharynx, the tongue will rise toward the roof of the mouth by the ascent of the hyoid bone, and the following structures will have been severed. The skin, superficial and deep fascia, sterno-hyoid muscles, and perhaps the hyoid arteries. These vessels constitute the source of the hemorrhage, and though I have had occasion to tie them, they are not of sufficient magnitude to render it probable they would discharge a fatal quantity of blood. Should a more extensive section of the thyro-hyoidean membrane be made, the laryngeal nerve may be divided and the epiglottis cartilage wounded.

The explanation of many things noticed after such accidents will, from the above observations, be readily understood; such as the want of proper control over the movements of the tongue, and imperfect articulation, the hyoid bone, to which several of the muscles of the tongue are attached, being cut loose in a great measure below; the escape of fluids taken into the mouth through the wound, in consequence of its communication with the pharynx; the strangulation which ensues in attempting to swallow, especially if the epiglottis or superior laryngeal nerve be implicated, the one standing as sentinel to the laryngeal opening, being thus rendered incapable of duty, and the other presiding over its sensibility, fails to excite properly those motor actions which serve to resist and expel matters foreign to the organ. I remember a cut-throat case, two years ago, which came under my care in the Philadelphia Hospital, of this nature. All attempts at swallowing were followed by the most distressing symptoms of suffocation, during which the fluids taken would pour out of the wound. In this instance, the epiglottis was cut almost entirely from its thyroid attachment, and the wound having been carried very much to one side, probably involved the superior laryngeal nerve on that side. This man was afterward, by observing great care, able to cultivate a combination of muscular actions so as to impart such a direction to his nourishment in leaving the fauces, and descending the pharynx, as to glide past the larynx without entering. A wound here can scarcely be expected to heal by intermediate union, as every movement of the tongue, and every attempt to swallow, will disturb the contiguous edges. The repair will be accomplished slowly by granulation. These being singularly pale, when compared with the florid hue which usually distinguishes such formations. The effect of position in approximating these wounds is very important, for let the gap be ever so great, the simple depression of the chin will close it. The introduction of sutures, even of the metallic kind, fail to procure the satisfactory results which they do elsewhere, so that it is at least questionable whether the treatment of a case is at all facilitated by their employment. When used, the chin should be retained near to the top of the sternum, as the ligatures will prevent the edges of the wound from overlapping, and this position will be found to disturb the parts least, in the frequent movements of the tongue and larynx.

2d. Leaving the thyro-hyoid space, and passing down the median line to the lower border of the thyroid cartilage, a second membrane comes into view, uniting the cricoid and thyroid cartilages together, the "*crico-thyroid membrane.*"

To puncture this membrane opens the larynx, and the operation is termed *laryngotomy.* The interval is small, and altogether inadequate for the removal of a foreign body from the air passages. In cases of imminent hazard to life from suffocation, this space may be opened as an extemporaneous resort, until one more effectual shall be substituted.

The *crico-thyroidei* muscles arise, one on either side of the middle line, from the circoid cartilage, and diverging rapidly as they ascend, are inserted in the thyroid cartilage. They are short pyramidal muscles. Across the crico-thyroid membrane rests the *crico-thyroid* artery, a branch of the superior thyroid, and situated on the middle of the membrane. This vessel is quite small, though it must not be forgotten that there are exceptional cases, in which it equals in size the superior thyroid itself; most instructive examples of this kind I occasionally witness in the anatomical rooms. A specimen of an unusually large crico-thyroid is in the possession of Dr. Gross, the younger.

From the above anatomical details, the following instructions may be deduced as regards laryngotomy: — *First.* The recognition of the crico-thyroid space, which is easily done by running the finger down the angle or prominence of the thyroid cartilage, until it falls into the sulcus, at its inferior border. *Second.* The division of the skin, superficial, and deep fascia, and the separation of the sterno-hyoid muscles from each other. *Third.*—The inspection of the blood-vessel which lies in front of the crico-thyroid membrane, observing to proceed no further until all bleeding has been arrested, and last, to puncture the membrane either transversely or vertically; if the former, above or below its middle, in order to avoid the crico-thyroid artery.

Anomalous Tumors.

By Jas. E. Garretson, M.D.,
Of Philadelphia.

Diseases of the Mouth—*Continued.*

Not unfrequently there may be seen standing, isolated and alone, on some portion of the dental arch, most frequently, however, either on the anterior portion of the inferior arch, or the posterior portion of the superior; a yellowish-looking tumor, which might not inaptly be compared to a shell-bark covered with inspissated mucus. Sometimes this tumor will be found quite firm in its position, seeming, indeed, as if it might have sprung from the socket of some long ago extracted tooth; at other times you will be able to move it quite freely, as if it had fleshy peduncles. These tumors give to the patient a most disgusting appearance, are insufferably offensive, and so detrimental to health, that five or six grains of their substance, given to a small animal, will not unfrequently cause its death. The composition of such tumor consists of phosphate and carbonate of lime, epithelial scales, inspissated mucus, and the various debris of a cavity devoted to mastication. In other words, they are salivary calculi. The nucleus of such a growth is, of course, a tooth. The manner of formation is too evident to need description. I have removed these calculi, where the nucleus had become so encysted, from crown to apex, that no trace of it was to be discovered without dividing the mass. Where, however, the encystment has advanced to this extent, the tumor is about ready to drop from the mouth of its own accord.

I have seen a calculus of this kind encyst the six lower front teeth, making as strange a looking tumor as could be well imagined.

Similar calculi develop, as may be inferred from my last paper, in other parts of the mouth. Thus, just within the orifice of the duct of Steno they may, occasionally, be found; the tumor, in such a case, bulging out from the cheek against the second molar tooth of the upper jaw. The formation of such tumors, in these situations, does not necessarily imply the closure of the orifice of the duct, but they form when the gland is sluggish, the secretion not being in sufficient abundance to hold the lime of the saliva in solution until it is ejected from the duct, it thus falls on the flow of the duct, and, lodging, makes the nucleus.

I remember, on one occasion, to have been called by a fellow practitioner to see a case where a mass of this calcareous matter, quite the size of the largest almond, seemed to be growing from all that portion of the sublingual region anterior to the gland of that name; one-half the tumor looked as if it might be below the level of the floor of the mouth, the mucous membrane enveloping the mass with ragged and ulcerated edges. It certainly presented a very strange and threatening look. My friend was deceived as to its character, because there was no apparent direct association between the tumor and the neighboring teeth; and because it was as firmly fixed as though it might have been a growth springing from the neighboring bone.

But yet it was a salivary calculus and nothing else, the only question being as to its cause and fixedness.

Looking about the mouth, I perceived that the patient had certain artificial teeth on the

left side of the arch, these teeth were all coated with tartar—salivary calculus—and so associated thereby with the natural teeth as to be only distinguishable by that difference in the translucency so immediately noticeable by any one experienced in such a direction. Knowing well that it is a plan with many dentists to secure such teeth by passing a strong gold wire across the mouth, and which wire, not unfrequently, buries itself within the mucous membrane, thereby, occasionally, concealing it, I inferred at once, that such a wire would be found the nucleus of our calculus, and directed an examination accordingly. This examination was commenced by cutting away the calculi from about the artificial teeth, and, as anticipated, the band of wire was revealed; next was sought the concealed attachment of the opposite side, and this being discovered and exposed, the two ends were forced from the teeth which they clasped, and thus the artificial teeth, wire, and calculus, were lifted from the mouth in a body.

The site of the calculus, as may be inferred, presented a cup-shaped ulcerated depression, and was quite angry looking.

The only after treatment consisted in the use of an astringent wash. The ulceration healed kindly in a very few days.

I may be allowed to suggest to the physician, that the existence of such calculi is not an unfrequent cause of dyspeptic and other alimentary troubles. I have just now, in my mind, a case of dyspeptic consumption, of which, truly, it might have been said "physicians were in vain," the patient having tried every class, from the professor down to the quack.

In her mouth she had but a single tooth, and this, for years had been so imbedded in salivary calculus, as much more to resemble the half rotted shell-bark than a tooth—her breath was made insufferable by it. I removed the offensive mass, and the recovery of the patient was really magical in its rapidity.

Such calculi are to be removed in any convenient manner, they may be pulled away, broken away, or, when loose, may be cut from the gum; the operation being entirely a mechanical one.

I forget, however, in such advice, my reference to calculi situated in the duct of Steno. These are to be removed, either by enlarging the duct and crushing the stone, or otherwise by cutting down upon it at the most convenient point. When so cut down upon, the wound will not commonly require any after attention.

There is another class of anomalous tumors sometimes to be met with in the mouth, and which, of all diseases of this cavity, are, perhaps, most simple, and yet most often misunderstood. I allude to fungoid excrescences from the tooth pulp. These tumors, frequently misnamed epulis, fungus hæmatodes, etc., grow most commonly from cavities in the molar teeth. When not overhanging the walls of the tooth, their nature is, at a glance, of course appreciated; but sometimes the growth is so extensive as not only to overhang the tooth but to completely conceal it, the morbid mass moulding itself over the gum. Here it simulates epulis; yet the practitioner will not be deceived if he remembers that epulis is a growth from the periosteum, while the mass can be lifted from the gum at any point of its circumference.

Its likeness to fungus hæmatodes, consists alone in its external features, certainly not at all in its history. Such tumors, bleeding, not unfrequently, most profusely at the slightest touch, while they possess the noli me tangere quality, the result of the constant irritation to which their situation necessarily subjects them. These tumors are wholly benign, and perfectly amenable to treatment.

The reader has, without doubt, seen a carious tooth, the cavity of which was, more or less, filled with a fleshy growth. This is the pathology of the tumor I have described.

Such a growth may, perhaps, be observed to exist in one out of five hundred decayed teeth, certainly it is not more frequent than this, particularly if we except the deciduous teeth; but the expansion of this fungus, so as to cover the tooth, is still so much more rare, that there are, I imagine, few practitioners who have ever had the opportunity to see the condition.

The dental practitioner, who is the one most apt to be consulted in the more limited form of the affection, (that is where the fungus is confined to the cavity of the tooth,) treats it most successfully by an application of the arsenical paste—the formula of which I gave in the paper on "Anomalies." A portion of this paste, say a piece the size of a pin's head, is laid directly on the tumor, and being covered in with wax, or a pledget of cotton, is allowed to remain from twenty-four to forty-eight hours. After the lapse of this time—the vitality of the growth being destroyed—the mass, including

all that portion of the pulp which is enclosed within the fangs, may be easily and painlessly removed. The diseased tooth, after a little medication, may not unfrequently be plugged and made useful for a considerable time.

Where, however, the disease has so progressed that the tumor overhangs the tooth, let the remedy be extraction. Now, although I am not unaware that such extraction is denounced as highly dangerous by authors who have written on the subject—a fear of unconquerable hæmorrhage being held up for the staying of the hand of the operator—yet I feel free to pronounce, that any surgeon who has so written has never practically known the disease.

It certainly is true, that these tumors, when in situ, not unfrequently bleed to an enormous extent on the slightest provocation, but it is not to be inferred from such bleeding that the artery of the tooth is not in a healthy state just outside the foramen, or that it does not possess an amount of contractile force equal to that of any of its neighbors. When the tumor is cut, it has no power to arrest hemorrhage, because, from its fungoid character, it is almost entirely deficient in vital force. The blood which is being passed into it through its arterial supply, may be said to drain away, just indeed as it would drain through a sieve until arrested through the mechanical influence of a clot which would be apt finally to form about the meshes of the wire.

Such authors as I make reference to, recommend the use of caustics and ligatures.

As above, I recommend in these bad cases the extraction of the tooth. You had better have nothing to do with trying to save such teeth—there is a bad cachexia about them.

If there should be any one, who, acting on my advice, finds that he has brought this trouble of hemorrhage on himself, he will find that he is entire master, by adopting the following simple manipulation.

Take a common cork, and make in it a V shaped cut. Next, procuring the cellar cobweb, saturate it with some tonic astringent,—the cinchona rubra answers admirably,—stuff this into the bleeding alveolus, and placing the V cut in the cork saddle-wise, over the gum, hold it firmly in place by binding the gums together by means of a Barton's bandage.

En passant.—This little manipulation, if properly conducted, will place all hemorrhage from the alveoli of teeth completely under the control of the surgeon. The after-treatment consists simply in leaving the clot to nature.

Very ugly, epulic looking tumors are sometimes formed, the result of an absorption of the alveolar process from about the roots of the teeth. A sufficiently illustrative example is recorded by Dr. Suesserott, of Chambersburg.

The Dr. informed me, in the course of a conversation I had with him, that on one occasion, being in the alms-house of a neighboring county, he was invited by the attending physician to look at a case of very rapidly advancing cancer in the mouth of one of the women patients.

The tumor, as described by the doctor, must have looked quite threatening enough. It occupied all the alveoli-labial space, bounded by the canine teeth of either side, and overhung the teeth which lay posterior to it. It was very much ulcerated, dark and turgid, and bled freely on the slightest provocation. The diagnosis was fungus hæmatodes.

Curiosity prompting Dr. S. to push the fungoid mass back from off the teeth, that he might thereby examine its base, he was satisfactorily surprised to find projecting into the very middle of the tumor the roots of the incisor, from over which the process had been absorbed.

Convinced that here was the primary lesion, he suggested the immediate extraction of these diseased teeth. The advice was acted on. The tumor, at once, began to diminish in size and formidableness, and in a very few weeks every trace of it had disappeared.

Mr. Smith, from whose clinical practice I have before quoted, gives the following, in part, parallel case.

"Elizabeth H., aged forty, was sent from some distance in the country to the infirmary, Dec. 12, 1856, to be treated for what she was told by a practitioner, was a cancerous tumor of the cheek. On examination, a tumor the size of a small chestnut was found with an ulceration of the mucous membrane, just fitting the sharp edge of one fang of a carious molar tooth of the lower jaw, which was making its way from the gum. Being fully assured from former experience of many cases of a similar kind that this was the sole cause of the tumor and ulceration, Mr. S. removed the tooth. The patient appeared again on the next clinic day, Dec. 17. The ulceration was healed, and the tumor gone.

Now I tell you, says Mr. Smith, if the cause

of that tumor had been overlooked, no treatment of any kind would have been of the least avail, it would have continued, it would have increased, and gone on from bad to worse for months, and possibly for years, unless the tooth had been removed by nature.

Several years ago, one of my own relatives died a most terrible death from a cancerous tumor of the cheek, located and aggravated by just such a ragged tooth.

It would seem impossible that a physician of any intelligence could overlook such a primary lesion, but in this particular case it certainly was overlooked, not only by one, but by many. Prof. Mütter, who operated on the case, was, as I have been informed, the first to point it out, but when, of course, it was too late.

More than thirty years ago (Braithwaite) Mr. Hey excised a malignant looking tumor from the tongue of a young country woman, a private patient of his; in a few days he was surprised to find that it had sprouted out as large, or larger than before the operation. Mr. Smith, who was called to examine the case, says: "on examining the tumor, which was dark, foul, and fungoid, and which bled at the slightest touch, giving great pain at every attempt to speak or masticate, I detected two broken incisors, the middle and left lateral leaning inward, and with sharp-pointed edges fitting into the centre of the tumor. I was immediately convinced that these two teeth were the cause of all the mischief, and stated that opinion to Mr. Hey, who appeared doubtful. I said that he would not be justified in applying ligatures, or using any other means, without first waiting to see the effect of the removal of the two broken carious teeth. I never saw the young woman again, but was informed by Mr. Hey that the teeth were drawn, and that soon after the tumor disappeared, without any other means being resorted to.

(*To be continued.*)

—o—

A Mill for the Toothless.—A little machine, intended for those who cannot properly masticate their food, is advertised in the *Lancet*. It is fastened to the dinner-table, and minces the food very finely. We can imagine a table set with these labor-saving contrivances for the benefit of those who are toothless, or are too lazy to chew, and a party of grannies dining with motionless jaws, each simply turning a crank. The next inventive effort of the originator should be directed to an apparatus for mechanical *swallowing*, provided with a mould for the bolus, ramrod, etc.

Hints and Observations on Military Hygiene, relating to Diet, Dress, Exercise, Exposure, and the Best Means of Preventing and Curing Medical and Surgical Diseases in the Army.

BY A HOSPITAL SURGEON OF PHILADELPHIA.

(*Continued from page* 222.)

SECTION II.

On the Regulation of Barracks.—"No barracks, however roomy, can dispense with ventilation; they will inevitably become unhealthy if deprived of it, and the most important of the injurious results in the Schleswig-Holstein war were the formidable pestilences of typhus fever and granular ophthalmia.

"In the best barracks of the Schleswig-Holstein infantry, 700 cubic feet per man were provided, including the double purpose of residence and sleep, and it was not difficult to obtain 800 on the occasional appearance of granular ophthalmia. In the English regulations of 1859, 600 are established by government. It is of great importance to have the sleeping and the sitting rooms separate, so as to subject the bedding to currents of air.

"According to the regulations of the U. S. Army; (1861,) for barracks and quarters: To every six non-commissioned officers, musicians, and privates, servants, and washerwoman, 225 square feet of room, north of 38° N., and 256 square feet south of that latitude.

"A high, dry, well-drained situation, is required without hollows, that can contain water, without mud, and protected from the drainage of neighboring grounds. Abundance of good drinking water must be accessible. The size of the grounds will depend on the situation; but it is the more important as impediment to ventilation exists. A southern exposure, admitting of a majority of the windows in that side, is the best; next to this a south-eastern. Taste should never be allowed to interfere with this. It will be recollected that the ocean lies on a different side from that which it occupies in the United States. The barracks should include no hollow square, or much projecting wings, never to exceed a projection of 25 feet; 500 feet should be allowed for the sleeping-rooms, and 300 for the day rooms; with large communicating openings near the ceiling, closed with Venetian blinds, to be left open in summer, after airing the day-rooms. All the rooms should be on the southerly side, with the corridor on the north.

"The windows of the corridor must be opposite the doors of the rooms, which should be folding-doors. The utmost deviation from these rules which can be permitted is the construction of two short wings to contain small chambers. For economy, the chambers should be made somewhat deep from north to south, and proportionably narrower in the other direction. The whole building should, for the sake of health, be made with deep cellars—if a perfect drainage be accessible, the washing-rooms should be placed there; if not, in the small projecting wings at the end, which should have solid floors, without cellars, and be themselves well drained. The bath-rooms should have hot water from the kitchen. The privies should be separate from the urinary funnels; and both remote from the dwelling-house. A stream of water should run through the bottom of the urinary conveniences. The apothecaries' shop must have good light, and a surface of at least 350 square feet. Large buildings have recently been erected in Hanover, in accordance with these rules, and supplied with a parade ground of fifty acres. Dr. Stromeyer defends the building of hospitals two to three stories high from motives of economy, and his hospital, including a basement, is four stories high, and he objects to Miss Nightingale's plan, from its nearly doubling the cost of erection. In addition to this, he conceives physicians called upon to oppose it, because, as he says, it excludes the use of smaller individual rooms for separating patients. In his opinion, the rise of effluvia from one floor to those above it, is in no degree to be feared, if simply each different story is properly ventilated."*

The space allowed to English hospitals averages 950 feet. Hennen says eight hundred feet will do, but Ballingall thinks that bedridden patients should be allowed one hundred.

SECTION III.

Medical Diseases of the Army.—Troops are more liable to enteric disorders than persons in civil life. "The higher ratio of sickness, in general, among troops in the field than among civilians, is more attributable to their constant and severe duties, and greater exposure to morbific influences, than to peculiarities of climate. Also, the ratio of *cases under treatment* among troops and among citizens is higher in the former than in the latter, And this may be accounted for, in a great measure, by the fact, that among the working classes of middle life, those cases only are recorded and enter into statistical data, which interfere with or prohibit manual labor, whereas among soldiers the slightest cases of indisposition are reported. In the latter case, an admission on the sick list secures an exemption from labor, while in the former it occasions a loss of wages."*

Soldiers are liable to all the diseases that civilians are; but the diseases most incident to troops are those connected with the digestive system, then follows those of the respiratory system, and, lastly, fevers; we shall, therefore, treat them in this order, giving but a synopsis, intended more as a medical remembrance to the young surgeon in the hospital or in the field, in case of emergencies, with their immediate treatment. The medical and surgical practitioner has so much to tax his memory with, that he requires, every now and then, to look into some short work that will give him hints in the treatment of his cases.

Diarrhœa.—The great importance of this form of disease is seen by the report of the diseases of our U. S. troops at Cairo, Ill.; for of 772 cases treated, 103 were diarrhœa. This disease is caused by overloading the stomach, or by the use of indigestible food, or a high temperature. The symptoms in the first and second class of cases are the same, namely, griping, flatulence, sometimes nausea, a foul tongue, acrid or foul eructations, stools of unnatural appearance, very liquid or even watery; there is, usually, little or no fever; not much change in the pulse.

In the cases where it results from a high temperature, there is increased stimulation of the liver, and increased secretion from the same, which excites pain and griping in the small intestines. This latter is a very prevalent disease among troops during the hot months of summer and autumn.

Treatment.—At the commencement, administer a teaspoonful of castor oil with a small portion of laudanum, to remove offending matters and relieve pain.

After a day or two of total abstinence from solid food, employing simply rice or barley water, or arrow root, with some local warmth to the stomach, if the diarrhœa persists, vegetable astringents, with chalk and aromatics, are to

* Stromeyer's Maxims of Military Surgery, N. A. Medico-Chirurgical Review for May, p. 428.

* Statistical Report on the Sickness and Mortality in the Army of the United States, 1860.

be employed, with or without an opiate. In cases resulting from heat and moisture, sometimes termed *English* or sporadic cholera, the disease assumes a more severe character, the vomiting and purging, tinged with bile, being profuse, with violent pains and even cramps.

Treatment.—One grain each of opium, calomel, and camphor, every four or six hours, with the Mistura Cretæ, or Hope's mixture, a tablespoonful after every alternate evacuation.

Sporadic Cholera.—If the extremities become cold, with feeble pulse, with a tendency to collapse, administer brandy freely, with aromatic spirits of ammonia, and apply frictures to the abdomen, with mustard water or hot brandy and capsicum, with bottles of hot water, until reaction takes place.

The patient's drink should be wine and arrow root, barley or rice water. Afterward treat the fever and debility by liquor ammoniæ acetatis and tonics.

Asiatic Cholera.—This disease differs from the one above described, being much more fatal, and occurring as an epidemic. In the last form of disease treated of, the evacuations were colored with bile, in this, nothing but white or rice colored evacuations; the urine is not suppressed in the former, in this it is suppressed, which is a most distressing symptom; the tongue in the last is usually warm, in this it is cold; and although in a bad case, or in a feeble patient, the face and extremities show signs of a depressed circulation, in this the color is leaden, and the hands and feet sodden like a washerwoman's. In the majority of cases, this disease is preceded by simple diarrhœa, *which should always be promptly treated.*

In the course of the consecutive fever following reaction, an exanthematous rash sometimes makes its appearance, of a typhoid character.

Treatment.—Check the diarrhœa by opium, calomel, and astringents; enjoin strict rest; use arrow root and rice milk, and if there be exhaustion, add brandy or chloroform with oil of turpentine and frictions, and small doses of calomel, until bilious stools are obtained. Afterward, treat symptoms as they arise: chlorine water has been found useful in some cases.

Dysentery of the South in Texas and Florida.—Troops are very liable to this disease, simply arising from the gathering together of large bodies of men, and from heat and moisture.

Assistant-surgeon G. W. Johns, makes the following remarks in relation to the treatment of dysentery, a very formidable disease among troops in and out of camp.

"I may remark, in comparison, that as far as my observation has gone, somewhat different indications for the treatment of dysentery are presented in the disease as seen at this post, from what experience has taught in the management of the same disease as it was observed in the department of Texas, and the difference is with reference to the exhibition and value of mercury. In Texas, particularly the southern portion, irritability of the system appeared to be the chief characteristic, impressed upon the disease by the effect of a climate which is much drier and hotter than that of this locality; and the direct sedative effect of opium, freely used to quiet that state of the system which kept up the disease, combined with acetate of lead and other astringents, to assist (together with astringent injections) in arresting the albuminous discharges, with small doses of ipecacuanha to promote diaphoresis, was found the treatment best adapted to and most successful in dysentery; and mercury was but rarely employed, as it seemed to act as an irritant. In the much more moist climate of this post, (Fort Dallas, Florida,) of which the degree of moisture is even more appreciated by individual sensations than evidenced by the hygrometer, dysentery has been attended with greater derangement of the hepatic functions, and the indications have been for the use of mercury to relieve the portal circulation, and sometimes to employ it to the extent of producing moderate ptyalism." The number of cases of acute dysentery treated was 313 during the year, of which there were lost but 3 cases, or 1 in 104 by the above treatment.

Dr. Rush found the tenesmus much relieved by applying a piece of cotton dipped in equal parts of laudanum and sweet oil to the parts affected. The writer has found useful a suppository of coca butter, with the quarter of a grain of morphia.

Dr. Pringle's treatment of acute dysentery is as follows:

In the first stage a moderate bleeding; but in weakly habits, and where there are few feverish symptoms, this is omitted.

In the evening of the same day an emetic.

℞. Pulv. ipecac, - - - ℈i.
Ant. et potass. tart., - gr. j. M.

If there was much griping, the pulv. ipecac. was employed in five grain doses, at an hour

interval, till purging was brought about, which may be promoted by drinking water gruel. If the emetic plan is preferred, and the patient is robust, the operation is to be assisted by repeated draughts of camomile tea.

When the stools are large and bilious, and the patient fatigued with the operation, no medicine is given on the following day. But if the emetic is taken, or there is no bile in the stools, he then directs five grains of calomel with twenty-five of rhubarb.

At night, following the purge, an opiate—one grain of opium—is given with a small quantity of ipecac.

Here he gives an important caution, never to use opiates before the intestines are free. No medicine is ordered on the third day, unless the patient complains of griping, in which case the opiate is repeated at night; but, on the fourth day, if any bad symptoms remain, he again directs the ipecucuanha to be given in divided doses, or a purgative, consisting of eight grains of calomel and thirty of rhubarb; by this time most of the dysenteric causes give way, and sometimes sooner. If not, repeat the same treatment.

Chronic Dysentery.—This is a form of disease which almost all who follow the camp are apt to have. The symptoms are small muco-purulent or bloody stools, alternating with diarrhœa; in its treatment employ small doses of Mass Hydr., with strict rest—diet, rice water, barley water, arrow root, etc.; with flannel roller to the abdomen. Tonics of sulphate of copper, oxide of silver, and sulphate of zinc, in small doses, are useful if there is ulceration, with opium or morphia.

Catarrh, or Acute Bronchitis.—A catarrh, or common cold, is one of the diseases most common to soldiers, owing to their exposure. The mucous membranes in a state of health are moist, but when they become inflamed, they are at first dry, swollen, and then an increase of the natural secretion, which, after a time becomes unnatural. In catarrh, or common cold, we have the course of events stated above to happen. Sometimes one part of the air passages is affected, beginning at the nose; it may then creep down to the lungs, or passes into the Eustachian tubes, producing deafness, or down the gullet to the stomach. On examination of the chest in catarrh, we have, instead of the gentle respiratory murmur, a hissing, wheezing, or whistling. There is also pain in the head and over the nose. If there has been a decided chill, look out for a severe cough or bronchitis, sometimes pain in the chest from inflammation of the lining membrane, (more fully treated under pleurisy) or of the structure of the lungs, which is termed pneumonia.

Catarrh is a common disorder, and troops are apt to suffer very much from it. It is trivial, and with care runs its course in a few days if abstinence be observed from animal food and stimulating liquors, and if the patient remains in an equable temperature, and avoids re-exposure to the cause of his malady. But owing to exposure of the soldiers on duty—defective shoes and blankets—these colds often require the attention of the medical man. The treatment which we have found most efficacious is as follows: a free action on the bowels by a saline purgative, followed in the evening by a teaspoonful of the tinct. opii camphorata; this to be repeated every night after, with or without ten to twenty drops of vin. antimonii or spirits nit. dulc., mixed with sugar and water.

Sore Throat, or Inflammation of the Throat.—The inflammatory *angina* is most frequent and dangerous upon the first encampment. If the symptoms are very severe, and respiration is greatly impeded, and there is danger of suffocation, it requires large and free bleeding, purging, and blistering.

In milder cases employ leeches to the fauces, or counter-irritation by the volatile liniment, consisting of two parts of sweet oil to one of strong spirits of hartshorne applied to the throat, and renewed in four or five hours. By this means, and the use of slippery elm tea or flaxseed, resolution takes place and the swelling subsides. If, on examination, the abscess is found formed, and the lancet cannot reach it, its rupture will be hastened by the use of an emetic, and the patient should be carefully watched so that the pus does not choke him when it breaks.

(*To be continued.*)

——o——

Aerated Bread.—We notice by an advertisement in the *Dublin Medical Press*, that aerated bread is manufactured extensively by a company in that city. Air is incorporated in the dough by mechanical means. No yeast or leaven of any kind is used, and the bread is said to be more agreeable to the taste than ordinary fermented bread, and more digestible. The loss of some nutritious elements of bread by fermentation is also avoided.

Traumatic Injury of the Liver, with Profuse Bleeding—Recovery.

BY A. G. WALTER, M.D.,
Of Pittsburgh, Pa.

John Kohissen, roofer, forty-seven years of age, of Pittsburgh, of bilious constitution, large frame, and strong muscular development, was brought to my hospital on the evening of January 17, 1858, having been stabbed by his wife into the scrobiculus cordis with a broad-bladed knife, entering about four inches obliquely upwards. Withdrawing it himself, he walked (though profusely bleeding) some distance, when he sank exhausted upon the pavement. A surgeon summoned, found a vertical wound of an inch in length, close to the right of the processus ensiformis, from which venous blood, in a rapid, continuous, and large stream, was issuing. On introducing his finger into the cut, a deep rent was discovered in the concave surface of the small lobe of the liver. To arrest this profuse flow of blood, compression was made through the abdominal walls upon the aorta, which succeeded. When the patient arrived at the hospital, he was cold, very pale, with respiration not accelerated, slow and hardly-perceptible pulse, and very restless, outward bleeding having ceased. He suffered great pain in the wound, increased by swallowing, moving, and deep inspirations, with paroxysms of cramp in the abdomen, starting from the scrobiculus to the angles of the scapulæ, returning every quarter of an hour, during which the skin around the wound would swell out to the size of a pigeon's egg, as in hernia ventralis. The wound was left open, and the body inclined toward the right side, to facilitate the outward flow of blood. Ice, in bladders, was applied to the abdomen, opiates in grain doses were given hourly, and the greatest quiet enjoined, with abstinence from drink as much as possible. He slept some during the night, though frequently roused by the paroxysms of pain. Next day the pulse was very slow and small, skin cool, thirst great, with vomituritions, vomitus, and frequent paroxysms of pain, which were relieved by relays of leeches around the wound and the continuance of opium every half hour. Motion of body and deep inspirations could now be performed without pain, the pulse began to rise, the thirst to decrease, and abdominal tenderness to subside. On the evening of the third day, however, violent colicky pains in the hypochondria, extending to the groins and shoulder-blades, with eructation of wind, tumescence of the scrobiculus set in, recurring in paroxysms, which were subdued by cal. gr. x, followed by ol. ricini. cum spir. tereb. as a laxative, bringing away large quantities of dark and greenish stools. The tumescence, however, and tenderness of the liver increased, the intercostal spaces became effaced, flatulence, dry skin, great thirst, icterus, dry tongue, bitter taste now appeared, while the pulse and respiration remained unaccelerated. Free and repeated leeching the region of the liver, with the internal use of cal. and hyosc., carried to slight ptyalism and an occasional laxative, reduced the inflammation of the liver. The wound, though not interfered with, closed by first intention, bleeding having ceased. Some days later, parotitis of the right side set in, yielding to leeching and warm stupes, and was followed by inflammation of the inguinal glands of the left groin, without any appreciable cause. In three weeks the patient left his bed, and two weeks later the hospital, restored to health. The ventral hernia in the scrobiculus cordis was repressed by a truss.

The successful termination of the above injury, endangering the life of the patient by rapid bleeding, peritonitis and hepatitis, is mainly due to the great power of opium in preventing and arresting peritoneal inflammation. Under its benign and certain influence, traumatic injuries of the abdominal cavity and the viscera, which otherwise would prove fatal, are borne with remarkable impunity. There is no remedy so safe and true a handmaid to the surgeon as opium; there is none whose aid could be less dispensed with.

In the treatment of the case, it was considered proper *not to close* the abdominal wound, but to encourage the outward flow of blood by position of the body, after arresting it by pressure upon the abdominal aorta. By closing it, accumulation of blood in the abdominal cavity would have taken place to a great extent, to be followed by consequences which must have been serious. Opium did not prevent hepatic inflammation, the result of the direct injury to the liver; but it timely checked peritonitis, which is far more formidable in its issue than the former.

The appearance of parotitis of the right and bubo of the left side did not seem to bear any relation to the injury of the peritoneum and liver, but may be considered the effect of ptyalism, induced for the relief of the hepatic inflammation.

Medical Societies.

BROOKLYN MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting, May 28, 1861.

Dr. Daniel Ayres, President.

DR. LOUIS BAUER'S

Case of Artificial Anus at the Left Flexura Coli—Repeated Operations—Final Closure of the Aperture.

The patient, who was brought before the society, is a healthy, robust looking German, aged thirty-two years, a carpenter by trade. Seven years ago, whilst at work, a piece of timber fell upon his chest, fracturing on the left side the eighth and ninth ribs in two places each. The man was prostrated for three months, inflammation of the left lung, cough, hæmoptysis, and pain in the injured side ensuing. A week after the accident, an abscess formed in front of the thorax, broke, and after having discharged for a short time matter and feces, closed spontaneously. Another one formed on the side and back of the thorax about ten days after the injury, and discharged pus, feces, and some fragments of the ribs. Through this opening he has continued to discharge the contents of the large intestines, till his admission into the Brooklyn Medical and Surgical Institute, which occurred on the 18th of July last.

During the seven intervening years, the patient was continually seeking relief from his loathsome difficulty, which disqualified him for his trade and proscribed him from society. None of the surgeons, to whom he applied, attempted a radical operation. Some prescribed injections and ointments; others plugged the opening, with the view of diverting the feces from the fistulous track to the natural channel. This latter treatment was persevered in for twelve months at Ward's Island Hospital. All the means employed gave him no relief.

On his admission into the Institute, the condition of the patient was entered upon the clinical record as follows: "Five inches below left nipple and two inches from the free margin of left costal cartilages, there is a cicatrix, one and a half inches in diameter, movable and soft. At this place a piece of the eighth rib, three inches long, is absent. The two free ends are united to the neighboring ribs by fibrous bands. Through this opening, in the bony walls, the intestines protrude to a considerable extent. In the same line with this plane, but laterally and posteriorly situated, there is an aperture as large as a copper cent, through which feces freely pass. The margin is highly colored and everted mucous membrane. The finger can be freely passed into the descending and transverse colon. The surrounding integuments exhibit sclerotic tissue, indicating that the opening had at one time been larger. Here the bony walls are wanting as in front, and the intestines also protrude. The patient states that by the anus he defecates but once a week; that the size and quantity of the feces are generally diminished, and that nine-tenths of them pass by the artificial anus."

In a consultation between the surgeons of the institution, the desired radical operation was determined upon. Its success was questioned on account of the feces passing through the aperture chiefly, and the diminution in the size of the descending colon. The danger of colitis was also taken into consideration, but administration of large quantities of opium was thought an efficient preventative. In case of need the wound might be re-opened.

After the bowels had been carefully prepared by aperients and enemata, the operation was performed by Dr. Bauer in the following way: An incision was made through the integuments around the opening, and one half inch from its margin, the skin carefully dissected toward the fistula and turned inward, so as to form a plug for it. A flap was then taken from the neighboring integuments, sufficiently large to cover and exceed the opening, and fastened in place by silver wire sutures. By means of adhesive strips and bandages around the body the dressing was completed. A recumbent position was directed. During the two following days the patient was quite comfortable, but at the end of that time he complained of painful internal pressure upon the wound. Gas commenced escaping; small quantities of feces making their appearance between the margins of the wound. The sutures commenced ulcerating, and then it was thought advisable to leave the rest to the operations of nature. After the lapse of four weeks the wound had healed to a certain extent, leaving the opening only one half of its previous size, and this was divided into two parts by a vertical bridge. From that time the quantity of feces escaping was greatly diminished.

Three months after a second operation was performed in a similar manner, but in the after treatment the opium was dispensed with. Dr. Bauer apprehended no danger of inflammation, and thought that the constipation of the bowels might have been conducive to the partial failure of the first operation, the intestinal gas having expanded the part, and forced its way through the wound. Injections were, therefore, given regularly.

Although the second operation did not close the fistula entirely, yet it reduced its size to that of a small pea, and the patient was therefore materially relieved.

A month ago the man entered the institution for the third time, when the actual cautery was applied, which led to a complete and firm closure of the opening.

In commenting on the case Dr. Bauer stated, as his opinion, that the partial success of the first two operations was all that could have been expected for the time being, and that the free use of opium had most likely prejudiced the result in no way. We ascribe the partial failure to the habit of the feces passing through the fistula, which allowed only a gradual diversion into the proper channel. Cases like the present are very rare, and still rarely successfully treated. On account of the defective state of the thorax, the patient has been advised to wear an elastic belt, with leather pads, to cover the defective walls, and to prevent the protrusion of intestines.

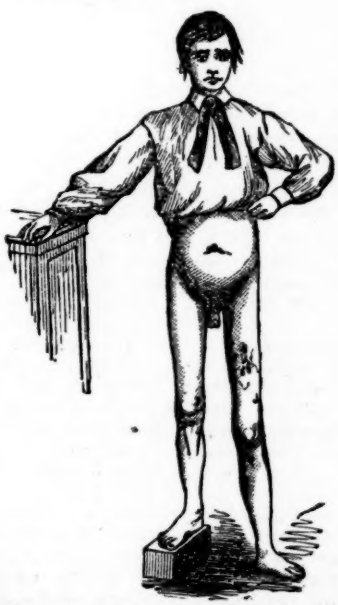
The Chair having been informed of the presence of Prof. Lewis A. Sayre and Dr. Cleveland, of New York, tendered the invitation of the Society to the gentlemen to participate in its deliberations.

In accepting the courtesy, Prof. Sayre said, that he was glad of the opportunity of presenting two interesting cases, which fairly belonged to Brooklyn.

DR. LEWIS A. SAYRE'S

Case of Necrosis of Left Femur—Elongation of the same by three and a half inches in excess of its fellow—The extremity four inches longer than the right—Removal of the Sequestrum—Secondary Hemorrhage and Death of the Patient.

The patient in this case was John Morro, the author of "Voice of a Newsboy," a lad of seventeen years. The Doctor had but a short time known him; his sufferings, privations, and endurance had, however, enlisted his (the Doctor's) warmest interest, and he lamented his decease deeper than almost any other patient he had had the misfortune to lose in the course of his practice. From a tender age, the patient had suffered from the effects of periostitis of the left femur, which had, in part, become necrosed and encased by new bone. The constant discharge from several fistulous openings in the thigh, together with early privations and exposure, had greatly undermined his constitution and prejudiced his development, so that he exhibited the appearance of a much younger boy, and both anæmied and enfeebled at that. The patient presented no indication of puberty, and his voice was still child-like. The most remarkable feature in his case was the exuberance of the new bone in the longitudinal direction, exceeding its fellow three and a half inches, whereas its circumference scarcely denoted the presence of a sequestrum, so little was it enlarged. The limb was kept in a straight position, and admitted of no flexion, chiefly in consequence of the tension of the integuments and muscles. Besides, the femur, ilium and tibia were slightly increased, so that the affected extremity exceeded the length of the other by about four inches. Johnny had applied to Dr. Sayre for relief, and desired the removal of the dead bone. The patient being an inhabitant of this city, and presenting his means as limited, the Doctor had procured admittance for him into the Brooklyn Medical and Surgical Institute, to give him the benefit of better nursing and domestic attendance. There the operation, fourteen days ago, Dr. Sayre had performed, assisted by Drs. Daniel Ayres, Louis Bauer, Whaley, and the surgical staff of the institution. The question had been seriously considered whether a partial exsection of the shaft of the femur might not profitably be combined with the operation, in order to render both extremities of equal length. Such a plan had been very inviting, because the affected femur was without medullary cavity, and could have, therefore, been invaded with more impunity in as far as the danger of phlebitis from endostitis was concerned.



Dr. Sayre had, however, prudently abstained from exsection:

1. On account of the enfeebled general health of the patient;

2. On account of the patient being the supporter of an aged mother, and his family in general, his life should not be unnecessarily hazarded for form's sake;

3. On account of the easy substitution of mechanical means in want of length of the right leg.

The operation had been very simple. An

incision down upon the bone, three and a half inches in length, had led immediately to the sequestrum. The openings in the femur had required to be but little enlarged to give ample access. The sequestrum being, however, six inches long, had to be removed in fragments. Some hemorrhage had occurred during the operation, the soft parts being very vascular; but the prompt application of per sulphate of iron had readily controlled it. Otherwise the operation had passed off with dispatch. During the following six days the patient was doing well, the wound was suppurating, and the albuminate of the iron separating. Though weak, the case promised speedy recovery. About this time, the patient desirous of relieving the duties of his attendants, and accustomed to dress his sores for so many years, commenced to dress his wound himself, and seemed to be unwilling to be touched by any body.

In the attempt to remove the clot produced by the styptic, he started, by a pair of scissors, a new hemorrhage, and, before he called for aid, he had lost a considerable quantity of blood. Although prompt assistance was then rendered, and the bleeding effectually arrested, yet the loss of blood sustained was too much for his feeble constitution. His stomach becoming moreover irritable, rejecting all nourishment and stimulus, and thus the patient sunk and died, after lingering a few days.

The post-mortem examination did not disclose any additional disease, beyond the collapse of vital powers.

DR. SAYRE'S

Case of Multiple Tumors of Left Leg—Softening of a large mass, implicating the Knee-Joint—Amputation—Difficulty in the Diagnosis of the Morbid Growth.

The patient is a tall, strongly-built gentleman aged forty-eight years. Previously to an accident some four years ago, he had been well, although a rather high liver, and obliged to a sedentary mode of business. In his family two cases of scirrhus have occurred. The alleged accident consisted in a fall with his knee on a curbstone. In the beginning there was but little trouble experienced, but, after three months, some *movements* of the left knee-joint became painful. A professional relative of the patient examined him, and pronounced his case bursitis; he, himself, describes it as a hazelnut-sized, movable, hard, but painless tumor, situated immediately above the left knee-joint. The doctor attempted to smash it by striking it with a heavy volume; he did not, however, succeed in doing so. The operation gave rise to a good deal of pain and extensive ecchymosis, about, but probably also within the joint. From this time the suffering became more severe. Drs. Alex. B. Mott, Willard Parker, and Carnochan were successively consulted. The two former seemed to coincide in the presence of an interarticular body; the last surgeon pronounced it periostitis of the lower third of the femur. Iodine, blisters, etc., were successively employed to relieve the trouble, but in vain. During the last year electricity had been used with the same result.

In the course of time the tumor in the joint increased in size; some others developed in the popliteal space, about the tendons of the internal hamstrings, and below the vastus externus. The biceps muscle became contracted, and flexed the leg permanently. With the appearance of this symptom, nocturnal pains set in, which were intense and periodical, interfering seriously with the rest of the patient, and disqualifying him temporarily for business. At this juncture the patient placed himself under charge of Prof. Sayre.

On examining the patient, Dr. Sayre found his condition as follows:—The extremity moderately bent at the knee, from a contraction of the external hamstring; the motions of the knee-joint very limited, the latter occupied by a tumerous mass, firm, elastic, and smooth in the centre, gradually softening toward the periphery, and presenting an indistinct feel of fluctuation. The patella crowded outside; the anterior contour of the joint lost; the integuments not changed in color; very little soreness but increased temperature. The circumference of the knee-joint measured seventeen and a half inches, whereas that of its fellow only inches.

Below the tendons of the semi-membranosus and tendinosus, there was one hard, slightly-movable, elastic, but painless tumor, of oval shape, and of the size of a hen's egg; smaller ones occupied the popliteal space, and another in size and shape of the former, located below the vastus-externus, about the middle of the femur. The patient complained much of nocturnal pains and soreness on locomotion. With a view of giving some temporary relief, Dr. Sayre advised rest, the supine posture, ice application, and pressure.

The patient, though slightly improved by these means, insisted, however, on a more permanent plan of alleviation, and enunciated his readiness to submit eventually to amputation. At this juncture, Dr. Sayre availed himself of the experienced counsel of his friend Dr. Louis Bauer, who ever since had conjoint charge of the case with him. In their deliberation, they had decided that the tumors in and about the joint were either fibrous or fibro-cartilaginous; that they were evidently of benign character, there being no glandular swelling nor cancerous cachexia present. The question of amputation was, for the time being, set aside, and the division of the biceps muscle determined on, in order to remove the reflex symptoms as the most urgent and painful one of the case.

About eight weeks ago that operation had been performed, the extremity had been forcibly

straightened, the joint surrounded by firmly applied plaster strips, and the leg placed in a well-padded iron splint. At the same time the hard tumor below the vastus-externus had been removed.

The immediate results of this proceeding had been a complete abatement of the nocturnal pains, and a diminution of the soreness in and about the joint.

In order to ascertain the density of the apparently softer material within the joint, the explorative trocar had been made use of, but no liquid discharge had been elicited.

During the two following days the patient appeared quite comfortable, and the wound in the thigh healed by the first intention. But soon it was noticed that the thigh became hot, swelled, discolored, and fluctuating. The wound was then re-opened, and an ichorous, discolored and copious discharge commenced. The burrowing of matter rendered, from time to time, free incisions necessary. The discharge never became free thereby, but tended to infiltrate the parts toward the hips. An incision through the vagina femoris, at the upper portion of the thigh, was a few hours afterward followed by copious hemorrhage, and, before it was noticed, and Dr. Bauer could be called, the patient had lost a good deal of blood, and was extremely prostrate.

The collapse lasted ten hours, during which time the patient looked pallid, was pulseless, without animal heat, and bathed in perspiration. He gradually and partially recuperated his vital powers, but remained greatly debilitated. At the end of six weeks, the knee-joint, heretofore quiet and easy, evinced some soreness, swelling, and discoloration. The fluctuation became more marked. Reaction upon the constitution ensued. With a view to relieve the local source of the trouble, it was deemed expedient to enter the distended joint with a trocar, and eventually to open it freely, if the consistency of its contents should not permit the withdrawal. Through the tube, but a few drops of decomposed blood escaped. The alternative was thereupon resorted to, and a few incisions made through the external lateral ligament. Some large, tolerably firm, white-yellowish, and homogeneous-looking substance was removed by the finger. With a similar material, the entire joint seemed to be filled. Besides this, decomposed blood escaped. A beginning bleeding abruptly terminated the exploration of the articulation for the time being, and demanded the closure of the opening. Enough had, however, been ascertained of the morbid condition of the joint to justify amputation of the thigh, and, for this operation, the prospects of success were exceedingly doubtful.

On Friday last, that operation was proceeded with. Dr. Sayre's solicitude was centred in the protection against excessive loss of blood. Dr. Dan. Ayres kindly consented in taking charge of the tournequet, and so admirably controlled the circulation that the patient lost scarcely a drop of arterial blood. Almost five days had elapsed since the amputation, and ever since, the patient had been doing well beyond description.

Dr. Sayre presented, then, to the society the morbid specimen. It consisted in the lower half of the femur, the knee-joint, and the upper third of tibia and fibula, being properly prepared for the occasion. The various tumors were shown first, presenting dense structure of a yellow white color, evidently made up of shiny fibrous and softer inter-fibrous material; they grated on the cut, and were firm and elastic; some were round, others oval, but all invested with a delicate, transparent capsule. The speaker left it undecided whether the investment consisted of a bursa, which was possible, on account of their respective seats below muscles and tendons, or whether they were of new formation.

Next, the joint was freely opened, when it was found to be entirely filled with a soft, white-yellowish, homogeneous substance, resembling closely brain in a state of simple softening. Dr. Sayre refrained from entering upon the finer structure of that substance, as he had requested his friend, Dr. Bauer, to make a microscopic examination, and was ready to report on the results of the same.

As the specimen was presented in the straight position, which had been that of the patient, that morbid substance did not enter between the corresponding articular surfaces.

The joint extended much higher in front of the femur than was usually the case. Whether this was simply the result of gradual extension of the synovial sack, or whether the bones under the vastus muscle had been ruptured by former violence, he felt unable to decide. Either was possible, in his opinion. The synovial membrane was mostly preserved, but varies by infiltration and slime tissue. But at the patella and the femur the cartilage had been destroyed in a small circumference; in general, it had remained in tact. Although the environs of the joint had greatly changed by inflammatory and purulent infiltration, yet their original structure could still be discovered.

In conclusion, Dr. Sayre stated that the morbid growth in the joint had forcibly reminded him of encephalous, with which, indeed, it had the greatest resemblance, yet, from the previous history of the case, he could not divest himself of the impression that it had originally been an articular enchondroma, and is part of the same structure as the remaining tumors, changed only by disintegration.

Dr. Louis Bauer proceeded then to give a minute description of the specimen. He had taken but superficial cognizance of the tumor previously removed from below the external vastus muscle. It appeared to be smooth, firm,

elastic, and surrounded by a delicate capsule. In its general aspect, it seemed to be an enchondroma or fibrous growth. He had, however, devoted some time in examining the minute structure of the specimen now before the Society; he had consulted his friends on the subject, and supplied them, likewise, with objects, and in fine he had inquired into the views of acknowledged pathologists. Nevertheless, he thought that the subject and the conclusions he had arrived at would bear discussion. Though the microscope had been very serviceable in the investigation, yet without the clinical history of the case he would have come to very different results.

If the soft, white-yellow, homogeneous material of the knee-joint had been placed before him, disconnected from its seat, the time of its development, its previous hard consistency, subsequent softening, and its evident traumatic course, etc., he, from both its gross and microscopic appearance, should not have hesitated in pronouncing it soft or encephaloid cancer. With this view, some of his professional friends coincided. For the soft specimen presented, under the microscope, besides abundant fat and other granules, such a proliferation of cells, such a difference in their size, shape, and contents, that its cancerous nature seemed to be unquestionable. Some of the cells were very large, like pavement epithelium, others smaller, down to the size of pus corpuscles, of which, indeed, there were some discernable. In the same way they differed in shape. They were round, oval, caudate, spindle-formed, stellate, and dumb-bell-shaped. Most of them were nucleoled and nucleolated, some purely so, others exhibited pale and refracting (fat) granules, with and without nucles. The latter presented likewise multiformity, round, oval, stellate, and highly irregular. Of a stroma, Dr. Bauer had seen nothing; the intercellular substance seemed to consist of granular, fatty, and formless material. This similated obviously the structural composition of the softer species of encephaloid.

The history of the case, however, did not admit of such a diagnosis.

1. This whole mass had once been as firm, movable, and elastic, as the numerous tumors in the immediate vicinity of the affected joint; in fact it had been the very first heterologous growth that made its appearance. The others having developed subsequently, presented a very different microscopic aspect. Their cell formation was very scanty, and the inter-cellular material was densely fibrous, grating on dividing, and of the consistence of fibro-cartilage. It was to be reasonably inferred, that these abnormal growths were collectively of the same pathological character, and closely connected with each other. That the cell proliferation of the one was due to the process of softening it had undergone in advance of the rest.

2. Gross states that the softening process of enchondroma converts its parenchyma into material so similar to cancer that its differential diagnosis is very difficult. Paget admits the same, and characterizes the cells as very like those of encephaloid, but he excludes the brain-like appearance. Whereas, Foerster states that softened enchondroma may assume white and yellow color, and thus identify it with encephaloid in its general aspect. From these authors, the possibility could not be denied, that the original tumor had been enchondroma, had undergone the changes of fatty degeneration and proliferation of cells, and softened down thereby.

3. The transformation of a benign tumor into a cancerous one, was denied by Virchow, and but feebly maintained by other pathologists.

4. Enchondroma was often the consequence of a traumatic injury; not so the encephaloid, which was more of spontaneous origin. In the present case, the patient had met with a severe accident upon his left knee-joint, and his extremity had besides been roughly handled. It was not uncommon that enchondromata in great number followed the formation of a primarily traumatic growth of this kind, as in the present case.

5. The tumors had been constantly disturbed by stimulating treatment, and yet none of them had been softened except that within the knee-joint, and it should be borne in mind, that not only the *brisement forcé*, performed some eight weeks ago, and that the supuration of the cellular tissue in the thigh, so near the joint had been sufficient to break down the hardest structure.

6. That the patient did not present any symptoms of cancerous cachexia, nor any swelling of the neighboring lymphatic glands, which he certainly should have expected at such juncture.

7. In fine that the surrounding soft parts of the joint had preserved their character as far as had been compatible with the constant irritation and excessive action within and about the joint.

From these considerations Dr. Bauer concluded that the morbid growth within the joint was not of cancerous character, but that it presented softening of an enchondroma, whereas the rest of tumors were enchondromata as yet preserved in their integrity.

Dr. Daniel Ayres stated, that his deep interest in this case had led him to devote considerable time and attention in canvassing the various opinions which had been advanced; and at times he experienced no little difficulty in reconciling to his own satisfaction the conflicting views expressed, and the no less varying authorities marshaled in their support. As the final result of his own observations, varied in some degree from those maintained by previous speakers, he would attempt to embody them as succinctly as possible.

The first point upon which he desired to fix

attention, was the condition of the synovial membrane apart from the tumors themselves. The serous lining of the joint exhibits that pathological state so well described by Brodie and Barwell as the usual evidence of chronic inflammation. It presents a spongy, gelatinous mass, mammillated upon its free surface, and imparting the idea of a loose connective tissue infiltrated with albuminous materials. This condition of tissues was joined to rapid dry eneration, but he was satisfied that it was not exclusively confined to *chronic* cases. A recent amputation by one of his colleagues, disclosed this identical result, following an attack of traumatic synovitis of very few weeks standing, and combined with extensive erosion of cartilage; and the speaker had witnessed similar results in the elbow-joint. It was important to separate this element of the case from the more chronic, and to his mind, more important features, with regard to which two prominent views had been entertained. 1st. That it might be encephaloid; and 2d. That the original formation was enchondroma, of which, this white opaque, softened and brain-like material, was but the dry eneration.

Upon a superficial examination, the striking features of this specimen were well calculated to ally it with the class of cancers; but a closer analysis, aided by the microscope, has enabled us all satisfactorily to eliminate this hypothesis; and there has consequently been a disposition to settle down upon the second view, which assumed the original disease to have been enchondroma.

The sluggish development of the case, and slight constitutional involvement, the heterogeneous character of the microscopic elements, and the presence of large cells strongly resembling those of cartilage in the process of fatty degeneration, and withering; all these points seemed rather to controvert the first view, than to prove the second. And although some of his friends had favored the opinion, that even the color, consistence, and aspect or the softened masses here exhibited, were not incompatible with the history of enchondroma, he was not prepared to ignore observations to the contrary, from authority entitled to respect.

The clinical history at the outset discloses to us a circumscribed movable tumor, following an injury. This was firm and slightly elastic to the touch, and although presumed to be an inter-articular body, we have no evidence that it had an inter-articular location. Next in order, we have the development of a number of tumors identical to all appearances in their plan of formation, but varying in ultimate size, and some of them marked by the rapidity of their transformations; results which in part at least, are justly attributable to the violent measures which had been early employed, no less than the irritating and stimulating treatment so long pursued. These tumors are all found occupying the inter-muscular septa, imbedded in connective tissue, and surrounded with capsular investments of like nature. Finally, we have all the cellular planes of the thigh involved in a rapidly proliferating condition, and its products quickly falling into purulent degeneration.

In examining different portions of these tumors, Dr. Ayres has found all the microscopical elements which are held to be associated with the class of fibro-cellular tumors, so ably and minutely described by Paget; and with which he asserts that nodules of cartilage are not unfrequently associated. Moreover, that in the process of dry eneration, these tumors supply a material strongly resembling encephaloid in appearance; whereas, the true enchondroma, with its semi-translucent, hyalinic structure, furnishes retrograde products resembling thin glue or melted jelly.

For these reasons, he thought, we were justified in classifying this specimen with the fibro-cellular, rather than enchondromatous tumors.

EDITORIAL DEPARTMENT.

PERISCOPE.

MECHANICAL APPLIANCES.

A correspondent, "W. E. C." (W. E. Coale?) communicates to the *Boston Medical and Surgical Journal* the following excellent illustration of the benefit to be derived from the use of artificial limbs in cases where the original limb is lost or useless:

"I was consulted some time since in a case of perfect uselessness of the right leg from a former affection of the knee-joint. The patient had walked on crutches for twenty years. Of late she had begun to feel a numbness in the hands and a weakness in the arm, evidently from the effect of the crutch pressing upon the axillary plexus of nerves. This was a serious matter to her, as her needle was her means of livelihood. My opinion was sought as to whether the knee was in such condition as would enable it to support the weight of the body, if an artificial limb could be adapted to it. There had been much disorganization and displacement of parts by the old disease; the patella was pushed aside, the ligaments greatly absorbed, and the tibia partially dislocated. Nevertheless, the present condition of the parts seemed perfectly healthy, and there was no tenderness. I therefore encouraged the hope that a good support would be furnished by the end of the femur when the leg was flexed. A few days since I saw the patient, and found her walking without crutches, and with great ease. Acting upon the assurance I had given her, she applied to Messrs. Palmer & Co., who had fit-

ted an artificial limb for her on their plan, but with certain modifications to suit the case. When walking, the real but useless limb is flexed or projects behind at a right angle—which, however, the happy use of crinoline entirely conceals, and the artificial one takes its place as a support, flexing at a joint just below the real knee. When sitting, the natural limb drops down just behind the artificial one, which is somewhat hollowed to receive it.

"I consider this case well worth mention, from the trouble the patient was experiencing in the increasing pain and weakness of the arms, and the numbness of her fingers—which, had it developed, would have incapacitated her from her daily occupation. This trouble has now ceased entirely. The use of crutches with her, and I find with many others, produces severe fatigue of the chest, and in this particular this person has experienced great benefit. She mentioned incidentally, that at one house where she staid, she ascended seventy steps to her room without fatigue or inconvenience. In a male case, the same adaptation could be made, but in such an instance amputation might be desirable to remove the inconvenience and ungainliness of the useless and supernumerary limb."

SOFTENING OF THE HEART AS A CAUSE OF SUDDEN DEATH.

At a late meeting of the Boston Society for Medical Improvement, Dr, Ellis reported the following case of softening of the heart. It is published in the *Boston Medical and Surgical Journal:*

"The patient was a large, robust-looking man, fifty-seven years of age. He had been much depressed by misfortunes in business, but, notwithstanding, enjoyed very good health until about six weeks before his death, when he was suddenly attacked with severe pain and a sense of stricture across the front of the chest. This lasted but a short time, when he felt as well as ever. He continued to have similar attacks occasionally, but of such short duration that it was thought useless to send for a physician. In the morning of the last day of his life, being again attacked, he sent for Dr. Cotting, of Roxbury, but on his arrival came forward and said that he would find nothing the matter with him, as the paroxysm had passed away. On examination, nothing unusual was found in the chest, the heart pulsating regularly, and with its normal frequency. In the evening, he sat up and played chess until nearly midnight, fearing another attack. He was troubled by pain through the sternum, and oppression about the chest, from midnight until four or five o'clock in the morning, when he died. His wife left him standing, while she went to procure something in another part of the room, when he was observed to slide into a chair and thence to the floor. A neighboring physician was sent for, who pronounced him dead. He had never been confined to the house.

"The organs were all healthy, except the heart, which was flaccid, of a dull red color, and so soft that it broke down under the traction used in its removal. It could be perforated with the greatest ease on pressing it between the thumb and finger. The layer of fat had encroached upon the wall of the right ventricle, the muscular substance of which was very thin.

"On microscopic examination, the transverse striæ of the muscular substance were found to be very indistinct, and the fibrillæ had a somewhat granular appearance, but contained very few if any of the globules which are usually found in well-marked cases of fatty degeneration."

THE SPECIFICITY OF CONTAGION.

We find that, one by one, writers and observers appear to abandon the doctrine of the "specificity" of contagious diseases, and to declare their belief that they may arise from time to time *de novo* out of the dirt and neglect which surround us. We give, in another column, an extract from Percival's Lectures, which show what his belief was as to the origin of glanders in the horse, more than thirty years ago. Sanitary reformers have long shown the origin of diarrhœa in fæcal effluvia; Dr. Murchison has traced typhoid to the same cause; and, in a lecture delivered before the Royal Institution in 1859, and another before the Royal Institute of British Architects in 1860, Dr. Druitt summed up the evidence in favor of the spontaneous origin of scarlatina, diphtherite, erysipelas, hospital gangrene, dysentery, and ophthalmia, and of their propagation by contagion, under favorable circumstances. Mr. Simon has conceded the spontaneous origin of gonorrhœa and ophthalmia, and the contagiousness of suppuration, as a rule. Dr. Milroy, in a recent paper read before the Epidemiological Society, goes over most of the same ground. He referred to the spontaneous origin of hydrophobia, and of purulent ophthalmia, and to the undoubted fact of the occasional propagation of the latter disease by atmospheric dispersion. He showed the close resemblance between the plague and typhus fever, in origin, development, and obedience to hygienic measures; and the belief that the plague may arise *de novo* is confirmed by the fact of its appearance on the Bombay coast recently. With regard to the yellow fever, Dr. Milroy shows that in upwards of 1,000 cases in the Quarantine Hospital at New York, the disease never spread by contagion, though the case was otherwise on board the *Eclair*. So, also, cholera, he believes, may be generated *de novo*, and likewise propagated

by contagion, if the circumstances be favorable; the same with dysentery, erysipelas, and puerperal fever. On these subjects Dr. Milroy seems to agree in the views of the authors we have mentioned, and his paper shows a tendency in the professional mind to adopt new and, what we may call liberal views.—*Medical Times and Gazette.*

OPERATIONS FOR CATARACT IN GERMANY.

A German correspondent of the *Medical Times and Gazette* says that, in that country oculists have now almost entirely abandoned reclination, as they found that even in successful cases, where the patients could see very well for some time after the operation had been performed, after a few years, blindness had recurred; and, in such cases, the examination with the ophthalmascope showed that, where the lens had been placed, a choroiditis set in, which again destroyed the sight. The results which are obtained by the ordinary extraction by a flap formed upward for the hard cataract of old people, and by linear incision for the soft cataract of young persons, are so satisfactory that other modes of operation are scarcely necessary. In thirty-five cases of extraction by flap, Prof. Weber had only two unsuccessful results; and even these patients completely recovered the sight of one eye. As to linear incision, the same surgeon strongly recommends the operation to be finished as rapidly as possible, and to avoid bruising the edges of the wound by too diligently endeavoring to remove every fragment of the cataract, as by such proceeding iritis may be induced.

The latest novelty in the treatment of cataract is by Langenbeck, and is called "insolation." This is performed by concentrating the sun's rays on the opaque lens by an ordinary burning-glass. The lens is subjected to this concentration of heat and light for several minutes. The author of this operation reports nine cases which he has cured by it.

European eye-surgeons seem given to creating sensations by operative extravaganzas, and, notwithstanding the eminence of the distinguished surgeon above alluded to, we cannot view his last proceeding with any favor, or hope for any real good to come from it.

IMPERFORATE ANUS.

Dr. J. P. Haggett reports in the Cincinnati *Medical News*, the case of a male child, now thirteen months old, in which the rectum terminates in a small canal which communicates with the urethra. All the feces, since the birth of the child, have been discharged through the urethra. The child is rather feeble, and about the ordinary weight of a child at four months.

THE MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SATURDAY, JUNE 15, 1861.

VOLUNTEER NURSES FOR THE ARMY.

Florence Nightingale, during the Crimean war, opened a new sphere for the labor of woman, one which she has peculiar qualifications to fill, creditably to herself, and beneficially to those who fight the battles of their country. The treatment of the soldier on the battle field has undergone a marvellous change within the last half century, stripping war of some of its most revolting features, and the philanthropic lady, spoken of above, has contributed a large share toward bringing about this very desirable and much needed change. But every woman who desires to act in the capacity of nurse in the army is not a Florence Nightingale, either in philanthrophy or in capacity, to properly discharge the responsible duties that will devolve on her. It is necessary, therefore, that there should be some test as to qualifications for this position, as the demands of the age seem to indicate that women are, hereafter, to act in the armies of civilized nations in this capacity. In the absence of any systematic mode of training army nurses, the responsibility must devolve on some one to select from the civil, or rather, perhaps, domestic walks of life, those who have sufficient intelligence and judgment to aid the cause of their country in this direction.

Happily, though we have no Florence Nightingale, we have a Dorothy L. Dix, a worthy, truly philanthropic, and uncommonly intelligent and energetic woman, who has devoted herself for many years to the cause of suffering humanity, and who is, we believe, in every respect, Miss Nightingale's equal, to say the least. We are glad to see that our government, while admitting the propriety of employing competent women as nurses, has placed this estimable lady at the head of this important department. Those who are personally interested in the welfare of our brave troops—and who that loves his country is not?—will be glad to know that whether suffering from sickness or wounds, they will be under the general supervision of one so well qualified by nature and by education for her arduous and important position. Much as

she may deplore the horrors of war, the great heart of this benevolent woman will revel in this opportunity of serving her fellow men, and they, brave men, in the discharge of their solemn duties as loyal citizens of a government which has ever been mindful of its constitutional obligations to the country. Yet there will be no unnecessary discrimination made, for the true nurse, like the true physician, will serve friend and foe alike, ministering to the wants of all as opportunity offers.

As government has thus publicly acknowledged the importance of women nurses in connection with our armies, we trust, that ere long, some step will be taken, under its countenance at least, to qualify them for this important office. We need a good training school for nurses, and can see no reason why it should not be under the direction and control of government. We have military and naval schools, supported by government, to teach men how to fight, why not have a school, supported in the same way, to teach women how to care properly for the sick and wounded while in the service of their country?

—o—

Primitive Medicine and Primitive Christianity.—Galen, the early anatomist, although educated in a pagan country, and living in a region in which Christianity was but dawning, thus inscribes his anatomical works:

"In writing these books, I compose a true and real hymn to that awful Being who made us all; and, in my opinion, true religion consists not so much in costly sacrifices and fragrant perfumes offered upon his altars, as in a thorough conviction impressed upon our own minds, and an endeavor to produce a similar impression on the minds of others, of his unerring wisdom, his resistless power, and his all-diffusive goodness. For, his having arranged everything in that order and disposition which are best calculated for its preservation and continuation, and his having condescended to distribute his favors to all his works, is a manifest proof of his goodness, which calls loudly for our hymns and praises. His having found the means necessary for the establishment and preservation of this beautiful order and disposition, is an incontestible proof of his wisdom, as his having done whatever he pleased is of his Omnipotence."

Whooping Cough is now epidemic in the city of London. One hundred and twenty-four deaths from it were recorded in one week.

Correspondence.

WOUND OF LUNG—RECOVERY.

Poughkeepsie, June 4, 1861.

Editors Medical and Surgical Reporter:

Gentlemen:—The following case happened in my practice, and if you should think it worthy of a place in your journal you are at liberty to put it there.

Two young men of this place, John T. F. and Hugh H. in May last, had a quarrel and scuffle about some money. They fell to the ground, T. F. under. After being separated, T. F. was discovered to be wounded in the left side. On removing his shirt it was seen that he had received a stab between the fifth and sixth ribs, a portion of the lung protruding. The wound was inflicted with the large blade of a pocket-knife. The protruded part of the lung was about an inch in length and half inch in breadth. It was very sensitive to the touch; to that degree that reduction was out of the question. With a pair of scissors I removed the whole of the protrusion, it was followed, of course, with considerable hemorrhage. A compress and bandage was applied to the wound. From the first he complained of severe pain in the side, dyspnœa, and great nervous agitation. An anodyne was given immediately, and he was ordered to bed.

The next morning I found him almost entirely relieved of the pain and the nervous agitation, though it was necessary to give him another anodyne in the night. After that he recovered without one unpleasant symptom. The treatment was rest, in bed, low diet, and cold drinks. Truly yours,

Per Lee Pine, M. D.

—o—

Galen's First Study of Osteology.—The following is Galen's own account of his first opportunities of studying the human skeleton, about the year 120:—"I have often examined human bones when decayed tombs or monuments have fallen in my way. A sepulchre, slightly built, on the brink of a stream, having suffered from the violence of the torrent which had overflowed it; the body, carried away by the force of the current, stopped at last in a kind of harbor, bounded by pretty high banks. I had an opportunity of seeing this body, the flesh of which was already rotten, although the bones still adhered to each other, so that it resembled a skeleton prepared for the use of the student. At another time, I saw the body of a robber, lying on a mountain, remote from any public road. He had been killed by a traveler whom he attacked, and the inhabitants of the vicinity conceiving so wicked a man a proper prey for the vultures, refused him the right of sepulture; and, two days after, his bones were stripped of their flesh and dry, like those prepared for students."

NEWS AND MISCELLANY.

Nurses in the Army.— War Department, Adjutant General's Office, Washington, June 10, 1861.—*General Orders.*—Women nurses will not reside in camps, nor accompany regiments on a march; but those who apply for service, and are highly accredited, having certificates from two physicians and two clergymen of standing, and will forward the same to Miss D. L. Dix, at Washington city, will receive a certificate in return, accrediting them for service in any military hospital of the United States where such services are required. By order.

L. THOMAS, Adjutant General.

WOMEN NURSES.

It is proper to state that the number of nurses fully qualified for duty in military hospitals much exceeds the present requirements of such service. D. L. DIX.

RULES AND CONDITIONS OF SERVICE.

Age.—Each candidate must be between the ages of thirty and forty-five, exceptions being only made in the case of nurses of valuable experience.

Health.—Only women of strong constitutions will be received: chronic disease, or other physical weakness disqualifying for service.

Character.—Every applicant must present written testimonials. If the applicant be accepted, these testimonials will be filed, and the name of the referees entered on the register of nurses. Only persons of the highest respectability will be received. While the utmost delicacy is used in such investigation, the requisition of morality, sobriety, honesty, and trustworthiness, will be rigidly enforced.

Discipline.—A promise of cordial compliance with all the regulations of the service will be required; the subordination of nurses to the general superintendent, and of all to the medical authorities, being distinctly insisted on. Each candidate will be required to sign the printed regulations of the service. D. L. D.

Army Surgeons.—By the Board of Medical Examiners of the Army, which convened in the City of New York, May 1, 1861, the following named gentlemen were approved, and have since been appointed assistant-surgeons in the army:

Wm. A. Hammond, Pa.; J. P. Wright, Pa.; H. M. Sprague, Conn.; Chas. C. Gray, N. Y.; Wm. C. Spencer, N. Y.; F. L. Town, N. H.; Alex. Ingram, Ohio; Peter V. Schenck, N. J.; J. W. S. Gouley, La.; Dallas Bache, D. C.; B. E. Fryer, Pa.; John H. Frantz, Pa.; Webster Lindsly, D. C.; C. E. Goddard, N. Y.; H. R. Silliman, Pa.; P. C. Davis, Va.; Jos. S. Smith, Va.; C. J. Wilson, D. C.; Jas. F. Weeds, Ohio; Chas. B. White, N. Y.; G. M. Sternberg, N. Y.

Modern Superstitions Relating to Insanity.—At the Society of Antiquaries of Scotland, Dr. Mitchell read a paper "On the Superstitions relating to Lunacy in the North-West Highlands of Scotland, and on some of the Antiquities of Lunacy." Dr. Mitchell commenced with an account of various superstitions connected with the holy wells, and especially that on Inch Maree, in a loch in Ross-shire:—

"The insane patient used to be bathed in the well, and then carried out in a boat round the island, being occasionally plunged into its waters, after which—and the leaving of an offering of his clothes on a tree—his cure was expected. Dr. Mitchell read some remarkable extracts from the records of the Presbytery of Dingwall, which showed, at various periods of the seventeenth century, the existence of a practice of sacrificing bulls at Applecross for the recovery of the health of some patient, on the festival of the Saint, and which called forth many fulminations from the Presbytery, as well against the going to chapels, adoring of wells and stones, and pouring of milk on hills as oblations. Dr. Mitchell, however, had found that similar practices existed in quite recent times, and that within the last ten years a live ox had been buried in Moray for the health of the rest of the flock. After some curious historical references, which showed that the practice of sacrificing bulls was observed at Kirkcudbright in the twelfth century, and other notices of May Wells, and the old custom of going all over Scotland to them in search of health, and then proceeding to those in England, Dr. Mitchell proceeded to explain some of the superstitions common in the Hebrides relative to epilepsy. Thus a sufferer from this disease was recently put to bed with the dead body of his mother in the expectation of a cure; another drank the water in which the dead body of his sister had been washed; and in another case, on the spot where the patient fell, from his first attack, a live cock was buried with a lock of his hair and parings of his nails as an offering to the unseen power. In Ross-shire a patient lately drank a cupful of his own blood. Dr. Mitchell pointed out many similarities between these and African superstitions relating to insanity and epilepsy."—*Medical Times and Gazette.*

The Drinking Tube.—A simple and portable contrivance for the benefit of soldiers has been introduced, the object of which is convenience in drinking from streams along the line of march, and which, at the same time, filters the water taken up. It is a slender, elastic tube, with an expanded opening at one end, in which is placed a sponge that acts as a filter. The other end of the tube is fitted with a mouthpiece. Water is readily sucked up through it, and is strained before it reaches the mouth. It seems to be of real utility, and is more convenient to carry than an ordinary drinking cup.

Medical Appointments to the Volunteer Corps of Pennsylvania.—The Governor, of this State has announced the following appointments on the recommendations of the Board of Examining Surgeons, whose action was reported in our last issue. Besides these, there are a number of surgeons already in the field, who were appointed before the law was passed by which these examinations were made.

Surgeons.—Alfred W. Green, Germantown; L. W. Reed, Norristown; Charles Bower, Newton Hamilton, Mifflin county; George T. Carpenter, Pottsville; B. A. Lichtenthaler, Lock Haven; Thos. B. Reed, Washington.

Assistant Surgeons.—G. L. Pancoast, Philadelphia; W. F. Marsh, Honesdale; Edward Brenneman, Lancaster; J. M. Lodge, Philadelphia; H. K. Neff, Huntingdon; Thomas Jones, Philadelphia.

The Surgeon-General has adopted the rule, after the examination of applicants for appointment in his department, to select from all a certain number, and then dividing these according to qualification for surgeons and assistant surgeons, they are notified personally by letter from the Surgeon-General's Department, to hold themselves in readiness for a call, and as they are required, they are commissioned by the Governor. The rule has also been adopted, as far as practicable, to appoint surgeons and assistants from the locality where the companies were enlisted, so as to give the volunteers the benefit of physicians acquainted with them personally.

Volunteer Nurses for the Army.—The Secretary of War has addressed a letter to Surgeon-General Wood, of the army, in which he says that during the present war, the forces being made up chiefly of volunteers, the public sentiment and the humanity of the age require that the services of women, as nurses, should be made available in the general hospitals, where, except in a very humble department, they have heretofore been excluded. As many carefully-selected women are in training in various cities of the loyal States, it is the order and wish of the department that women should be substituted for men in the general hospitals whenever it can be effected, and that such women as have received previous training for the purpose be accepted as nurses, except when these can no longer be had. And it is ordered that none be received except those who have presented their applications to a lady appointed by the department to preside over the volunteer women nurses, and who shall have sole authority to select and accept nurses, requiring their age to be above thirty, with certificates of character and capacity.

Miss Dix has been appointed superintendent of the women nurses, with the exclusive charge of accepting such as she may deem properly fitted for the service.

The transportation, subsistence, and wages of such nurses as may be accepted by her are to be paid from such moneys that would be expended in the wages and support of men nurses, or are derived from the usual resources of hospital service.

Professional Remuneration.—A prominent practioner in London, the *Medical Times and Gazette* says, has recently received a fee of $25,000. The will of an eminent civil engineer, lately deceased, bequeaths $5,000 to his medical attendant, and the widow has since added $20,000 to the legacy.

Medical Veterans.—The following eminent medical men have recently died at advanced ages: Dr. Tiedemann, aged eighty-seven, at Munich; Dr. Germa, aged eighty-six, at Paris; Dr. Van Vaerenbergh, aged eighty-four, at Antwerp; and Dr. Francis, aged seventy-two, at New York.

DEATH.

FOYE.—Dr. E. M. Foye, Surgeon of the Thirty-Eighth Regiment, New York Volunteers, died very suddenly on the 9th inst., at East New York, of congestion of the brain. Dr. Foye was an accomplished military surgeon. He was with Garibaldi in 1847, and a surgeon in the British army during the whole of the Crimean campaign.

Answers to Correspondents.

W. K. M.—A Medical Benevolent Society was organized in this city many years ago. It was intended to become national in its character, but failed. We know of no such institution in the country at the present time.

M. D.—There have been some undoubted instances of incubation of hydrophobia beyond sixty days; but the lapse of four months should induce you to satisfy your patient of his safety.

J. S.—We have experienced two failures in the treatment of hydrocele with the wire-seton. Where success has followed this treatment, the inflammation seemed to be as great as after the introduction of the thread-seton, or the injection of tincture of iodine. In the failures, the inflammation had not, in either case, reached the usual height. We can see no advantage in the employment of the wire-seton, excepting that it is less painful.

Communications Received.

Connecticut—Dr. A. R. Goodrich; Dr. A. Hobron. *Illinois*—Dr. B. Woodward. *Maryland*—Dr. L. Wachter, with encl. *Massachusetts*—Dr. Chas. E. Buckingham. *Michigan*—Dr. L. D. Tomkins, with encl. *New Jersey*—Dr. P. N. Jacobus; Dr. W. Jackson; Dr. R. W. Clark. *New York*—Dr. Louis Bauer (2); Dr. Per Lee Pine; Dr. Willets, with encl. per Dr. L. Bauer; Dr. O. C. Gibbs; Dr. J. Swinburne; Messrs. Kinne & Phillips. *Pennsylvania*—Dr. B. F. Tillum; Dr. H. S. Mellinger, with encl.; Dr. J. E. Kent; Dr. S. F. Neely; Dr. C. P. Herrington; Dr. A. M. Sigmund. *Rhode Island*—Dr. E. A. Crane; Dr. Samuel W. Francis; Dr. E. M. Snow.

Office Payments.—Dr. Wm. Y. Detwiller, Pa. By Mr. Hulme, New Jersey: Drs. J. B. Goodnough, A. A. Higgins, E. Bennett, G. A. Hankinson, and S. Still. By Mr. Swain: Drs. Leon, J. H. Schenck, J. Sterling, Starkey, W. O. Kline, Chipman, A. M. Asay, and H. Y. Evans.